

### A. KEITH McDONALD, Mayor ENGINEERING & UTILITIES W. R. McCLANAHAN - Director WADE TOWLES - Assistant City

A. KEITH McDONALD, Mayor W. R. McCLANAHAN - Director and City Engineer

WADE TOWLES - Assistant City Engineer

September 28, 2016

Ms. Joellyn Brazile Tennessee Department of Environment and Conservation Division of Water Pollution Control 8383 Wolf Lake Drive Bartlett, TN 38133-4119

Re: City of Bartlett MS4 Annual Report, Year 2015-2016

Dear Ms. Brazile,

The attached information has been produced as a summary of the sixth year of this permitting cycle of the City of Bartlett Storm Water Program as required by section 5.4 of the Small MS4 General NPDES Permit effective October 1, 2010 (#TNS075698).

On August 11, 2016, a public notice was posted in the Bartlett Express newspaper soliciting comments on the annual report and announcing a public meeting for that purpose to be held on September 6, 2016. The report was made available for review and comment at the Department of Engineering and Utilities from August 15, 2015 to September 16, 2015. A public meeting was conducted September 6, 2015 at Bartlett City Hall as announced. Comments were accepted until 5 p.m. September 16, 2015. No public comments were received.

If you have any questions or comments please feel free to contact me at (901)385-6499 or dfent@cityofbartlett.org.

Sincerely,

Donald W. Fent

Storm Water Coordinator

Attachments:

Tab 1: Annual Report

Tab 2: List of Impaired Waters

Tab 3: Listed Species Evaluation/Consultations

Tab 4: Public Education/Outreach Summary

# Tab 1 Annual Report



### Tennessee Department of Environment and Conservation

### Division of Water Resources

William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243 1-888-891-8332 (TDEC)

### Municipal Separate Storm Sewer System (MS4) Annual Report

### 1. MS4 Information

City of Bartlett			TNS075	TNS075698					
Name of MS4			MS4 Per	MS4 Permit Number					
D	on F	ent	dfent@cityofbartlett.org						
N	ame	of Contact Person	Email Ac	ldress					
9(	01-38	25-6499							
T	eleph	one (including area code)							
		tage Road				2			
M	lailin	g Address							
	artlet	t	TN	38134-3739					
C	ity		State	ZIP code					
W	/hat i	s the current population of your MS4? 56,488	;						
W	hat i	s the reporting period for this annual report?	From 2015	to 2016					
2.	W	ATER QUALITY PRIORITIES (SECTION 3.1)							
		Does your MS4 discharge into waters listed as i (d) list and/or according to the on-line GIS mapp	•	's most current	⊠ Yes		No		
	B.	If yes, please attach a list all impaired waters w	ithin your juris	dictional area.					
	C.	Does your MS4's jurisdictional area contain any other than pathogens, siltation and habitat altera			en approve	•	rameters		
	D.	Does your MS4 discharge to any Exceptional T National Resource Waters (ONRWs)? If yes, p	37	,		Yes	⊠ No		
	E.	Are you implementing additional specific provide ETWs or ONRWS located within your jurisdict.		the continued integri	ty of	Yes	⊠ No		
3. PROTECTION OF STATE OR FEDERALLY LISTED SPECIES (SECTION 3.2.1 General Permit for Phase II MS4s)									
	A.	Are there any state or federally listed species wi	thin the MS4's	jurisdiction?	⊠ Yes		No		
	В.	Are any of the MS4 discharges or discharge-relating any state or federally listed species?	ated activities 1	ikely to jeopardize	☐ Yes		No		
	C.	Please attach any authorizations or determination discharges on state or federally listed species.	ns by U.S. Fish	& Wildlife Service	on the effect	of the	MS4		
1.	PU	BLIC EDUCATION AND PUBLIC PARTICIPATION	(SECTION 4.2.	1 AND 4.2.2)					
	A.	Have you developed a Public Information and E	ducation plan (	PIE)?		<i>l</i> es	□ No		
	В.	Is your public education program targeting spec pollutants, such as Hot Spots?	ific pollutants a	and sources of those		l'es	□No		

### Municipal Separate Storm Sewer System (MS4) Annual Report

C. If yes, what are the specific causes, sources and/or pollutants addressed by your public education program?

		ent in yards and construction; nutrients from fertilizers and yard waste; bacteria and pathoge connections; herbicides and pesticides; and automotive fluids and other household hazardous		aste and		
	D.	-				
	E.	Do you have an advisory committee or other body comprised of the public and other stakeholders that provides regular input on your stormwater program?  ☐ Yes ☐ Y				
	F.	How do you facilitate, advertise, and publicize public involvement and participation opportunities? <u>Public notices</u> in newspaper and/or website; local cable channel; emails				
	G.	G. Do you have a webpage dedicated to your stormwater program?				
		If so, what is the link/URL: <a href="http://www.cityofbartlett.org/915/Storm-Water-Management-Division">http://www.cityofbartlett.org/915/Storm-Water-Management-Division</a>				
	Н.	Are you tracking and maintaining records of public education, outreach, involvement and participation activities? Please attach a summary of these activities.	⊠ Yes	□No		
5.	ILL	ICIT DISCHARGE DETECTION AND ELIMINATION (SECTION 4.2.3)				
	A. Have you completed a map of all outfalls and receiving waters of your storm sewer system?   ☐ Yes ☐ ☐					
	B. Have you completed a map of all storm drain pipes of storm sewer system?   □  □					
	C. How many outfalls have you identified in your system? 2132					
	D. Have any of these outfalls been screened for dry weather discharges?   ☐ Yes					
	F.	What is your frequency for screening outfalls for illicit discharges? <u>Major outfalls to waters of the state are screened once every five years unless evidence of an illicit discharge requires more frequent screening. Other outfalls are screened one time unless evidence of an illicit discharge requires more frequent screening.</u>				
	G. Do you have an ordinance that effectively prohibits illicit discharges?					
	H. During this reporting period, how many illicit discharges/illegal connections have you discovered (or been reported to you)? 11					
	I. Of those illicit discharges/illegal connections that have been discovered or reported, how many have been eliminated? <u>11</u>					
6.	Co	ONSTRUCTION SITE STORMWATER RUNOFF (SECTION 4.2.4)				
	A.	Do you have an ordinance or adopted policies stipulating:				
		Erosion and sediment control requirements?	⊠ Yes	□ No		
Other construction waste control requirements?						
Requirement to submit construction plans for review?						
	MS4 enforcement authority?   ☐ Yes ☐					
	B.	How many active construction sites disturbing at least one acre were there in your jurisdictiperiod? 222	on this reporti	ng		
	C.	How many of these active sites did you inspect this reporting period? 222				

### Municipal Separate Storm Sewer System (MS4) Annual Report D. On average, how many times each, or with what frequency, were these sites inspected Monthly (e.g., weekly, monthly, etc.)? E. Do you prioritize certain construction sites for more frequent inspections? ⊠Yes □ No If Yes, based on what criteria? Recurring non-compliance encountered during monthly routine compliance inspections. 7. PERMANENT STORMWATER CONTROLS (SECTION 4.2.5) A. Do you have an ordinance or other mechanism to require: Site plan reviews of all new and re-development projects? ⊠ Yes ☐ No Maintenance of stormwater management controls? ⊠ Yes П No Retrofitting of existing BMPs with green infrastructure BMPs? □ Yes ⋈ No What is the threshold for new/redevelopment stormwater plan review? (e.g., all projects, projects disturbing greater than one acre, etc.) All projects. C. Have you implemented and enforced performance standards for permanent stormwater ⊠ Yes П No controls? D. Do these performance standards go beyond the requirements found in Section 4.2.5.2 and require that predevelopment hydrology be met for: Flow volumes ☐ No Peak discharge rates ⊠ Yes $\square$ No Discharge frequency ☐ Yes ⋈ No Flow duration □ Yes ⊠ No Please provide the URL/reference where all permanent stormwater management standards can be found. http://www.cityofbartlett.org/DocumentCenter/View/1368 F. How many development and redevelopment project plans were reviewed for this reporting period? 32 G. How many development and redevelopment project plans were approved? 15 H. How many permanent stormwater management practices/facilities were inspected? 1 I. How many were found to have inadequate maintenance? J. Of those, how many were notified and remedied within 30 days? (If window is different than 30 days, please specify) N/A K. How many enforcement actions were taken that address inadequate maintenance? N/A Do you use an electronic tool (e.g., GIS, database, spreadsheet) to track post-⊠ Yes $\square$ No construction BMPs, inspections and maintenance? M. Do all municipal departments and/or staff (as relevant) have access to this tracking ☐ Yes ⊠ No system?

### 8. CODES AND ORDINANCES REVIEW AND UPDATE (SECTION 4.2.5.3)

N. Has the MS4 developed a program to allow for incentive standards for redeveloped

How many maintenance agreements has the MS4 approved during the reporting period?

O.

sites?

☑ No

☐ Yes

0

### Municipal Separate Storm Sewer System (MS4) Annual Report A. Is a completed copy of the EPA Water Quality Scorecard submitted with this report? ☐ Yes ⊠ No B. Include status of implementation of code, ordinance and/or policy revisions associated with permanent stormwater management. Current code, ordinance and policy support permanent stormwater management. They have been reviewed and will require change to support the new run-off reduction standard of the permit. A stakeholder meeting has been conducted with ordinance changes pending publication of the new MS4 permit. 9. STORMWATER MANAGEMENT FOR MUNICIPAL OPERATIONS (SECTION 4.2.6) A. Have stormwater pollution prevention plans (or an equivalent plan) been developed for: All parks, ball fields and other recreational facilities ⊠ Yes □ No All municipal turf grass/landscape management activities ☐ Yes ⋈ No All municipal vehicle fueling, operation and maintenance activities ⊠ Yes ☐ No All municipal maintenance yards ⊠ Yes ☐ No All municipal waste handling and disposal areas ⊠ Yes $\square$ No В. Are stormwater inspections conducted at these facilities? ⊠ Yes ☐ No 1. If Yes, at what frequency are inspections conducted? Every five years unless there is a change. C. Have standard operating procedures or BMPs been developed for all MS4 field ☐ Yes ⋈ No activities? (e.g., road repairs, catch basin cleaning, landscape management, etc.) D. Do you have a prioritization system for storm sewer system and permanent BMP ☐ Yes ⋈ No inspections? E. On average, how frequently are catch basins and other inline treatment systems inspected? N/A F. On average, how frequently are catch basins and other inline treatment systems cleaned out/maintained? N/A G. Do municipal employees in all relevant positions and departments receive ⊠ Yes □ No comprehensive training on stormwater management? H. If yes, do you also provide regular updates and refreshers? ⊠ Yes □ No If so, how frequently and/or under what circumstances? Refresher training every five years. 10. STORMWATER MANAGEMENT PROGRAM UPDATE (SECTION 4.4) A. Describe any changes to the MS4 program during the reporting period including but not limited to: Changes adding (but not subtracting or replacing) components, controls or other requirements (Section 4.4.2.a). None Changes to replace an ineffective or unfeasible BMP (Section 4.4.2.b). None Information (e.g. additional acreage, outfalls, BMPs) on program area expansion based on annexation or newly urbanized areas. None Changes to the program as required by the division (Section 4.4.3). None 11. EVALUATING/MEASURING PROGRESS

What indicators do you use to evaluate the overall effectiveness of your Stormwater Management Program, how A. long have you been tracking them, and at what frequency? Note that these are not measurable goals for individual BMPs or tasks, but large-scale or long-term metrics for the overall program, such as in-stream macroinvertebrate community indices, measures of effective impervious cover in the watershed, indicators of in-stream hydrologic stability, etc.

### Municipal Separate Storm Sewer System (MS4) Annual Report

Indicator		Began Tracki	ng (year)	Frequency	Number of I	Number of Locations	
Example: E. coli		2003	Weekly April–September		20		
No	one				M		
В.	evaluate the perform	of data (e.g., water qua ance of permanent stor	rmwater controls inst	alled throughout the	system. This evalu		
12. E	ENFORCEMENT (SECT	TION 4.5)					
A.	number of actions,	he following types of the minimum measure the you do not have auth	e (e.g., construction,				
	Action	Construction	Permanent Stormwater Controls	Illicit Discharge	Author	ity?	
Not	ice of violation	# <u>168</u>	#	#	⊠ Yes	□ No	
Adı	ministrative fines	# <u>1</u>	#	#	⊠ Yes	□ No	
Sto	p Work Orders	# <u>3</u>	#	#	⊠ Yes	□ No	
Civ	il penalties	#	#	#	⊠ Yes	□ No	
Cri	minal actions	#	#	#	⊠ Yes	□ No	
Adr	ministrative orders	# <u>13</u>	#	#	⊠ Yes	□ No	
Other Verbals #		#	#	# <u>11</u>			
B.	Do you use an electronic tool (e.g., GIS, data base, spreadsheet) to track the locations, inspection results, and enforcement actions in your jurisdiction?   ☐ Yes ☐		□No				
C.	What are the 3 most common types of violations documented during this reporting period? <u>Failure to maintain</u> <u>EPSC BMPs</u> , yard waste placed in streets/gutters, draining pools to storm drains.						
13. P	ROGRAM RESOURCE	S (OPTIONAL)					
A.	A. What was your annual expenditure to implement the requirements of your MS4 NPDES permit and SWMP this past reporting period?						
B. What is next year's budget for implementing the requirements of your MS4 NPDES permit and SWMP?					ИР?		
C.	Do you have an ind	lependent financing me	echanism for your sto	ormwater program?	☐ Yes	□ No	
D. If so, what is it/are they (e.g., stormwater fees), and what is the annual re-		annual revenue deri	venue derived from this mechanism?				
	Source: Amount \$						
	Source: Amount \$						
E.	How many full time employees does your municipality devote to the stormwater program (specifically for implementing the stormwater program vs. municipal employees with other primary responsibilities that dovetail						

with stormwater issues)?

### Municipal Separate Storm Sewer System (MS4) Annual Report

F.	Do you share program implementation responsibilities with	h any other entities?	☐ Yes	☐ No	
Entit	y Activity/Task/Responsibility	Your Oversight/Accountability Mechan		nism	
~ ~ ~					
G. P	ease attach a copy of your Organizational Chart				
14 0					
14. CERTIFICATION					
	This report must be signed by a ranking elected official or by a duly authorized representative of that person See signatory requirements in sub-part 6.7.2 of the permit.			at person.	

"I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am

aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

A. Keith McDonald, Mayor

Printed Name and Title

Annual reports must be submitted in accordance with the requirements of Section 5.4. (Reporting) of the permit. Annual reports must be submitted to the appropriate Environmental Field Office (EFO) by September 30 of each calendar year, as shown in the table below:

EFO	Street Address	City	Zip Code	Telephone
Chattanooga	540 McCallie Avenue STE 550	Chattanooga	37402	(423) 634-5745
Columbia	1421 Hampshire Pike	Columbia	38401	(931) 380-3371
Cookeville	1221 South Willow Ave.	Cookeville	38506	(931) 432-4015
Jackson	1625 Hollywood Drive	Jackson	38305	(731) 512-1300
Johnson City	2305 Silverdale Road	Johnson City	37601	(423) 854-5400
Knoxville	3711 Middlebrook Pike	Knoxville	37921	(865) 594-6035
Memphis	8383 Wolf Lake Drive	Bartlett	38133	(901) 371-3000
Nashville	711 R S Gass Boulevard	Nashville	37216	(615) 687-7000

### Tab 2 List of Impaired Waters

### City of Bartlett Municipal Separate Storm Sewer System (MS4) Annual Report

- 2. Water Quality Priorities (Section 3.1)
  - B. List of Impaired Waters:

	_	
1.	Loosahatchie River	TN08010209 002-1000
2.	Loosahatchie River	TN08010209 002-2000
3.	Oliver Creek	TN08010209 002-0400
4.	Buckhead Creek	TN08010209 002-0500
5.	Howard Creek	TN08010209 002-0700
6.	Harrington Creek	TN08010210 001-0100
7.	Unnamed tributary to Fletcher Creek	TN08010210 023-0100

C. List of Waterbodies with TMDL other than Pathogens, Siltation and Habitat Alteration:

1. Harrington Creek

Arsenic

2. Unnamed tributary to Fletcher Creek

Arsenic

### Tab 3 Listed Species Evaluation/Consultations

### City of Bartlett Municipal Separate Storm Sewer System (MS4) Annual Report

### 3. Protection of State or Federally Listed Species (Section 3.2.1)C. Determinations (Section 3.2)

The City of Bartlett has evaluated the effects of its storm water discharges, allowable non-storm water discharges and discharge related activities on state and federally listed species and critical habitat by referencing the listed species list published on the internet at <a href="http://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map">http://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map</a> and <a href="http://ecos.fws.gov/tess\_public/reports/species-by-current-range-county?fips=47157">http://ecos.fws.gov/tess\_public/reports/species-by-current-range-county?fips=47157</a> as well as with consultations conducted with Mr. Steven Alexander with the United States Fish and Wildlife Service completed on July 27, 2016 and with Mr. Robert Todd with Tennessee Wildlife Resources Agency completed on June 28, 2016.

Consultations with Mr. Alexander resulted in the belief that adverse effects to federally listed species from activities carried out under the City of Bartlett's MS4 program are not anticipated (consultation attached).

Consultations with Mr. Todd resulting in the Tennessee Wildlife Resources Agency opinion that the City of Bartlett's current code, city ordinances and policies, and other efforts to protect water quality are sufficient to minimize potential impacts to listed species under their authority in order to not jeopardize the continued existence of these species; and that the MS4 discharges or discharge-related activities within the City of Bartlett are not likely to jeopardize any state listed species (consultation attached).

Based upon our review and these consultations, we do not have reason to believe City of Bartlett discharges and/or discharge-related activities will jeopardize the continued existence of any state or federally listed species or result in adverse modification or destruction of critical habitat.



### TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

June 28, 2016

Donald W. Fent Storm Water Coordinator City of Bartlett 6382 Stage Road Bartlett, TN 38134-3739

Re: City of Bartlett MS4 Determination Review

Dear Mr. Fent:

The Tennessee Wildlife Resources Agency (TWRA) has reviewed the information that you provided regarding your MS4 permit. Data available to us does not indicate that aquatic state listed species under our authority have been documented in streams within your jurisdictional area although there are two terrestrial state listed species within your city's jurisdiction. It is our opinion that current code, city ordinances and policies, and other efforts to protect water quality are sufficient to minimize potential impacts to listed species under our authority in order to not jeopardize the continued existence of these species; and we agree with your determination that the MS4 discharges or discharge-related activities within the City of Bartlett are not likely to jeopardize any state listed species.

TWRA cannot comment on federally listed species. You must consult the U.S. Fish and Wildlife Service, Ecological Field Office in Cookeville, Tennessee to obtain their comments.

Thank you for the opportunity to conduct this review. If you have questions regarding this matter or if I may be of further assistance, please contact me at 615-781-6572.

Robert M. Jodd

Sincerely.

Robert M. Todd

Fish and Wildlife Environmentalist

cc: Allen Pyburn, Region I Habitat Biologist Alan Peterson, Region I Manager

Steven Alexander, USFWS

The State of Tennessee

### **Don Fent**

From:

Alexander, Steven <steven\_alexander@fws.gov>

Sent:

Wednesday, July 27, 2016 10:02 AM

To:

Don Fent

Cc:

Rick McClanahan; Wade Towles; Rob Todd

Subject:

Re: Annual MS\$ Endangered Species Consultation

Mr. Fent:

Re:

FWS #16-EC-0149

Thank you for your e-mail received June 27, 2016, regarding compliance with the Tennessee Department of Environment and Conservation (TDEC) Notice of Coverage annual reporting requirements for the City of Bartlett's MS4 permit (TNS075698) stormwater management program in Shelby County, Tennessee. U.S. Fish and Wildlife Service (Service) personnel have reviewed your request for technical assistance and offer the following comments.

Review of our endangered species database indicates that no federally listed or proposed endangered or threatened species occur within the jurisdictional boundaries of the City of Bartlett's stormwater management program. In view of this, we believe that adverse effects to federally listed species from activities carried out under that program are not anticipated. You should be aware that, while there are presently no known records in your jurisdiction, the federally endangered Indiana bat (*Myotis sodalis*) and threatened Northern long-eared bat (*Myotis septentrionalis*) may be found in trees with appropriate summer roost habitat along waterways. We appreciate the efforts of Bartlett's stormwater management program in helping to ensure that the quantity and quality of stormwater discharges from development activities in upland areas protect the water quality of the receiving streams within your jurisdictional boundaries and in downstream areas.

Thank you for the opportunity to comment. If you have any questions, please contact me.

Sincerely,

On Fri, Jun 24, 2016 at 7:44 AM, Don Fent < dfent@cityofbartlett.org > wrote:

Dear Mr. Alexander -

It's that time of year again where the City of Bartlett is required by the Tennessee Municipal Separate Storm Sewer System permit for Stormwater discharges to consult with the USFWS concerning endangered species. The City of Bartlett has evaluated the effects of its storm water discharges, allowable non-storm water discharges and discharge related activities on state and federally listed species and critical habitat by referencing

the listed species list published on the internet at <a href="http://www.natureserve.org/conservation-tools/listed-and-imperiled-species-county-and-watershed/county-map">http://ecos.fws.gov/tess public/reports/species-by-current-range-county?fips=47157</a>. Based upon our review, we do not have reason to believe the City of Bartlett discharges and/or discharge-related activities will jeopardize the continued existence of any state or federally listed species or result in adverse modification or destruction of critical habitat. Please provide your assessment for inclusion in our annual report.

To aid in your assessment, the City of Bartlett is located to the north of Memphis, approximate longitude -89.8495 and latitude 35.2052. If you have any questions, please feel free to contact me.

Sincerely,

Donald W. Fent

JUS 75

Storm Water Coordinator/Municipal Construction Inspector/Interim City Forester

City of Bartlett

6382 Stage Road

Bartlett TN 38134-3739

Office: 901-385-6499

Mobile: 901-734-8711

FAX: 901-385-7021

Please consider the environment before printing this email or any attachments.



### Steven R. Alexander

Ecologist / Environmental Contaminants Specialist

U.S. Fish and Wildlife Service
Tennessee Ecological Services Field Office
446 Neal Street
Cookeville, TN 38501
931/528-6481 x210
931/260-3527 (cell)
931/528-7075 (fax)
steven alexander@fws.gov

Web: http://cookeville.fws.gov

# Tab 4 Public Education and Outreach Summary

### City of Bartlett Municipal Separate Storm Sewer System (MS4) Annual Report

- 4. Public Education and Public Participation (Section 4.2.1 and 4.2.2)
  H. Summary of Activities:
  - a. Public Education and Outreach Summary:
    - a. Participated in the Tennessee Stormwater Association's Tennessee Association of Broadcasters public information broadcasting program (TAB).
    - b. 6 Construction Guide to Cleaner Water pamphlets distributed.
    - c. 2 "No Dumping Drains to River" inlet placards installed.
    - d. 481 Homeowners Guide to Cleaner Water pamphlets distributed.
    - e. 533 Pet Waste and Water Quality Pamphlets distributed.
    - f. 279 Clean Water Ever Body's Business bookmarks distributed.
    - g. 12 FYI local cable broadcast covering seven months were made:
      - i. Loose Leaf Pick-up broadcasts in October through December 2015 and January through February 2016.
      - ii. Storm Water Illicit Discharge Detection and Reporting broadcasts January, February, April and June 2016.
    - h. 11 Pollution Found in Your Neighborhood door tags distributed.
    - i. 126 Dog Poo Bag Dispensers distributed.
    - j. Storm Water Quiz. Five question quiz concerning storm water with prizes used to reinforce learned activities
      - i. 144 people took quiz September 2015 during the Bartlett Fall Festival.
      - ii. 11 people took quiz August 2015 during the Loosahatchie River Watershed Workshop.
      - iii. 15 people took quiz April 2016 during the Wolf River Watershed Workshop.
  - b. Public Involvement/Participation Summary:
    - a. One public notice was made via the internet and local paper.
      - i. Public meeting for 2015 Annual Report.